

## SB 203580

**Cat. #:** S-370

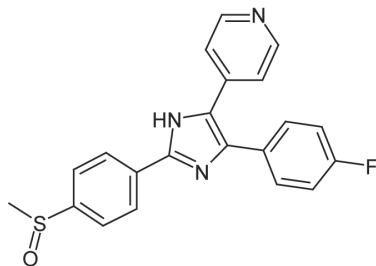
**Source description:** Synthetic.

**M.W.:** 377.44 daltons.

**Purity:** >99%.

**Effective concentration:** 10-100  $\mu$ M.

**Structure:**



**Chemical name:** 4-[5-(4-Fluorophenyl)-2-[4-(methylsulfonyl)phenyl]-1H-imidazol-4-yl]pyridine.

**Molecular formula:** C<sub>21</sub>H<sub>16</sub>FN<sub>3</sub>OS.

**CAS No.:** 152121-47-6.

**Activity:** SB 203580 is a specific inhibitor for the p38 MAP kinase homologues.

**References:**

1. Lee, J.C. *et al.* (1994) *Nature* **372**, 739.
2. Cuenda, A. *et al.* (1995) *FEBS Lett.* **364**, 229.
3. Whitmarsh, A.J. *et al.* (1997) *Mol. Cell. Biol.* **17**, 2360.
4. Clerk, A. *et al.* (1998) *FEBS Lett.* **426**, 93.
5. Hunt, A.E. *et al.* (1999) *J. Biol. Chem.* **274**, 7591.
6. Ward, S.G. *et al.* (1997) *Biochem. Soc. Trans.* **2**, 304S.

**Sizes:** 1 mg, 5 x 1 mg, or 10 x 0.1 mg lyophilized powder.

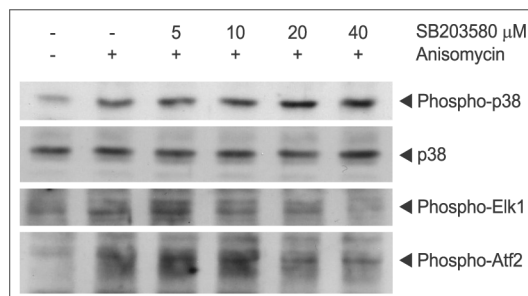
**Storage before reconstitution:** Lyophilized powder can be stored intact at room temperature for several weeks. For longer periods, it should be stored at -20°C.

**Reconstitution:** DMSO. Centrifuge all product preparations before use (10000 x g 5 min).

**Storage and stability after reconstitution:** Up to two weeks at 4°C or six months at -20°C.

**Protect from light.**

**Bioassay:** SB 203580 inhibits the phosphorylation of Elk1 and Atf2 via p38 in 3T3-L1 cells.



Cells were grown to 70% confluence and serum starved for 3 h. The cells were then incubated for 2 h with various concentrations of **SB 203580** (#S-370) and stimulated with 5  $\mu$ M **Anisomycin** (#A-520). Cell proteins were resolved by SDS-PAGE and probed with anti-phospho-p38 MAPK, anti-p38 MAPK, anti-phospho-Elk1 and anti-phospho-Atf2 as indicated. The phosphorylation of Elk1 and Atf2 decreased in a dose-dependent manner.

**For research purposes only, not for human use.**

**Last Update:** May, 2010.